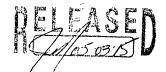
5/13

| DART AEROSPACE LTD          | Work Order:  | 22906       |
|-----------------------------|--------------|-------------|
| Description: Wheel Assembly | Part Number: | D3233-041   |
| <b>Dwg:</b> D3233 Rev. B    | Qty:         | 4           |
| Ref:                        |              | Page 1 of 1 |

| Step | Location | Procedure   | Вул  | Date     | Qty |
|------|----------|---|------|----------|-----|
| 1    | DC       | Issue Traveler  | PX   | 05,03.31 | 4   |
| 2    | MFA      | Pick:           Qty         Part Number         Description         Batch           2         D3233-7         Shaft Sleeve         B22860           2         D3233-9         Tire & Rim Assembly         B22421A           2         D3332-5         Hub Sleeve         Bearing & Inner Sleeve           4         NKI 30/20         Bearing & Inner Sleeve         M17235           5         Axel Seal         M17235           6         Or CR 35x45x7 HMS4 R | (F)  | 05/04/07 | 4   |
| 3    | MFA      | Press out bearings that are supplied with D3233-9 wheel and discard them.   | FL   | 05/04/07 | 4   |
| 4    | MFA      | Cut shims and assemble as per Dwg D3233   | P)   | 05/04/07 | 4   |
| 5    | MFA      | Spray inside hub and bearing with LPS-3 & block hole with a clean dry rag for storage.  | CPL. | 05/04/67 | 4   |
| 6    | QC5      | Inspect work to Step 5  | AA.  | 05/07    | .4  |
| 7    | ST       | Identify and Stock  | CPL, | 75/04/87 | 4   |
| 8    | AC       | Cost / part: Z68./6 Close W/O Z 71.26   | 7    | 05.05.20 | 4   |
| 9    | DC       | Close W/O Z 71.26<br>Inspect Level 21   | 40   | 05.05,24 | 4   |

| Rev | Date     | Change        | Revised By | Approved |
|-----|----------|---------------|------------|----------|
| Α., | 05.01.12 | New issue     | KJ/JLM     | 1        |
| * B | 05.03.03 | Made in house | KJ/JLM (   | J. 11.   |



D3233-041 B22421A

# Dart Aerospace Ltd

| W/O:      | : WORK ORDER CHANGES |                  |    |      |     |                                 |                          |
|-----------|----------------------|------------------|----|------|-----|---------------------------------|--------------------------|
| DATE STEP |                      | PROCEDURE CHANGE | Ву | Date | Qty | Approval<br>Mfg / Design<br>Mgr | Approval<br>QC Inspector |
|           |                      |                  |    |      |     |                                 |                          |
|           |                      |                  |    |      |     |                                 |                          |
|           |                      |                  |    |      |     |                                 |                          |
|           |                      |                  |    |      |     |                                 |                          |
|           |                      |                  |    |      |     |                                 |                          |

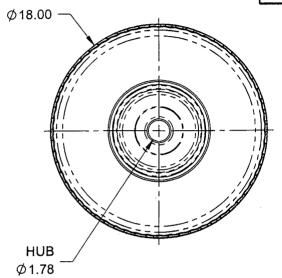
| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                |                |              |                        |                          |  |
|------|------|----------------------------------|-----------------------------|--------------------------------|----------------|--------------|------------------------|--------------------------|--|
|      |      | Description of NC                | Corrective Action Section B |                                |                | Verification | Varification A.        |                          |  |
| DATE | STEP | Section A                        | Initial<br>Design Mgr       | Action Description  Design Mgr | Sign &<br>Date | Section C    | Approval<br>Design Mgr | Approval<br>QC Inspector |  |
|      |      |                                  |                             |                                |                |              |                        |                          |  |
|      |      | ,                                |                             |                                |                |              |                        |                          |  |
|      |      |                                  |                             |                                |                |              |                        |                          |  |
|      |      |                                  |                             |                                |                |              |                        |                          |  |
|      |      |                                  |                             |                                |                |              |                        |                          |  |
|      |      |                                  |                             |                                |                |              |                        |                          |  |
|      |      |                                  |                             |                                |                |              |                        |                          |  |

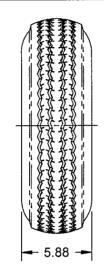
| Part No:                         | PAR #: | Fault Category: | NCR: | Yes No  | DQA:    | Date: |
|----------------------------------|--------|-----------------|------|---------|---------|-------|
| NOTE: Date & initial all entries |        |                 |      | QA: N/C | Closed: | Date: |

· Allegarine

# PRELIMINARY ISSUE

| DESIGN     | I        | DRAWN BY | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA |              |  |  |
|------------|----------|----------|--|--------------|--|--|
| CHECK      | ED       | APPROVED | DRAWING NO.                                    | REV. B       |  |  |
|            |          |          | D3233  | SHEET 1 OF 3 |  |  |
| DATE       |          |          | TITLE  | SCALE        |  |  |
|            | 05.03.08 |          | WHEEL ASSEMBLY                                 | 1:1          |  |  |
| Α          | 0        | 5.02.18  | NEW ISSUE                                      |              |  |  |
| B 05.03.08 |          | 5.03.08  | ADDED BEARING SEALS                            |              |  |  |





D3233-9

ASSEMBLY

TIRE AND RIM/1

D3233-7

SHAFT SLEEVE (1)

BEARING INNER

SLEEVE (2) (INCLUDED WITH NKI30/20 BEARING)

| WHEEL SPECIFICATIONS                |                      |                                |  |  |  |
|-------------------------------------|----------------------|--------------------------------|--|--|--|
| SIZE                                | MAXIMUM<br>LOAD      | MAXIMUM<br>INFLATATION<br>LOAD |  |  |  |
| TIRE: 19.0 x 5.8<br>RIM: 5.70 x 8.0 | 910 LBS<br>(RANGE C) | 90 PSI*                        |  |  |  |

\* MANUFATURER'S RECOMENDATIONS ARE 75 PSI FOR HIGH SPEED USE.

# SHOP COPY

RETURN TO ENGINTETING

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WORK ORDER NO. 22906

NKI30/20 NEEDLE ROLLER BEARING (2) 2 3 AND BRASS SHIMS (8) (NOT SHOWN)

D3233-5 22861 HUB SLEEVE (1) 22679

ALIGN D3233-5 NOTCH WITH RIM'S GREASE FITTING HOLE.

BEARING SEAL WALBY P/N 35x45x7 OR

CR 35x45x7 HMS4 R P/N 13927

(2 PLACES)

## D3233-041 WHEEL ASSEMBLY

#### NOTES:

1) POSSIBLE SUPPLIER: McMASTER-CARR, P/N 8353T74 2) POSSIBLE SUPPLIER: GENERAL BEARING 3) PRESS FIT NEEDLE ROLLER BEARINGS INTO RIM HUB WITH (4) 0.5 X 0.75 X 0.004 BRASS SHIMS PER BEARING, (1) AT EACH QUADRANT. POSSIBLE SUPPLIER: GENERAL BEARING
TOLERANCES ARE PER DARLOS 018 UNLESS OTHERWISE NOTED

6) ALL DIMENSIONS ARE IN INCHES

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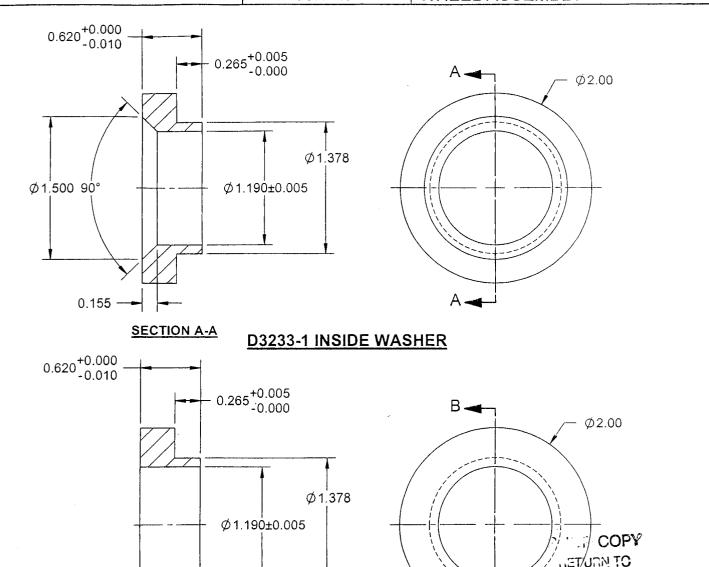
# PRFI IMINARY ISSUE

DESIGN DRAWN BY DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. CHECKED APPROVED REV. B D3233 SHEET 2 OF 3 DATE TITLE SCALE 05.03.08 WHEEL ASSEMBLY

> **ENGINEERING** UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE

> > WYDER ORDER

22906



**D3233-3 OUTSIDE WASHER** 

#### NOTES:

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS (REF. DART SPEC. M1020TR)
  2) FINISH: POWDER COAT FIRE RED (REF. 4.3.5.10) PER DART QSI 005 4.3
  3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

SECTION B-B

5) BREAK ALL SHARP EDGES 0.005 TO 0.010

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### Job Costing Report

Dart Aerospace Ltd. . Hawkesbury

Apr 01, 2005 07:18 am

Work Order No : 0022906

Project Name : D3233-041 Project For : WK513

Work Order Type : Main

Main WO Number

House Part Number: D3233-041 Description : Wheel Assembly

Manufactured : Yes

Amount Req'd :

0 Amount Done :

0 : 04-01-05 Start Date

Est Finish Date : 04-04-05 Act Finish Date :

Drawings Regd : No Ok for Approval :

Approval Rec'd :

Department Code:

Burden Flags : NNNNNNN

WÖ Status : Open

Invoice State : Not Invoiced

Invoice Date :

Invoice Number :

0.00 Invoice Amount :

Order Entry No :

OE Value : 0.00

Est Mark Up : 0.000% Actual Mark Up : 0.000%

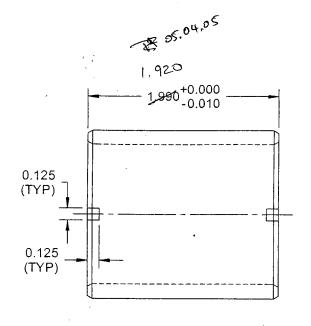
\$0 Posted to Finished Goods

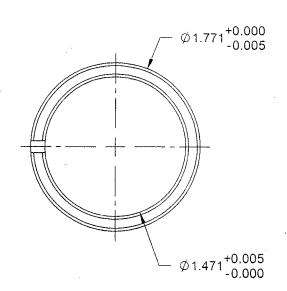
|                    | Estimated                               | Actual                 | Var. %       | Posted  | To Post      |
|--------------------|---|------------------------|--------------|---------|--------------|
| Material Cost :    | 0.00                                    | 0.00                   | 0.00         | 0.00    | 0.00         |
| Engineering Hours: | 0.00                                    | 0.00                   | 0.00         | · Andir | MAN          |
| Engineering Cost : | 0.00                                    | 0.00                   | 0.00         | 0.00    | 0.00         |
| Production Hours : | 0.00                                    | 0.00                   | 0.00         | :       | MAN CAR OF   |
| Production Cost :  | 0.00                                    | 0.00                   | 0.00         | 0.00    | 0.00         |
| Packaging Hours :  | 0.00                                    | 0.00                   | 0.00         |         |              |
| Packaging Cost :   | 0.00                                    | 0.00                   | 0.00         | 0.00    | 0 100.00     |
| OverHead Hours :   | 0.00 🛴                                  | . 0.00                 | 0.00         |         |              |
| OverHead Cost :    | 0.00                                    | 0° 20                  | 0.00         | 00,00   | 0.00         |
| CNC Hours :        | 0.00                                    | 0.00                   | 0.00         |         | f S          |
| CNC :              | 0.00                                    | 0.00                   | 0.00         | 0.00    | وجم 0.00     |
| Misc. Hours ::     | 0.00                                    | 0.00                   | 0.00         |         |              |
| Misc. :            | 0.00                                    | 0.00                   | 0.00         | 0.00    | 0.00 🤾 🦽     |
| · "                |   | ======; ,:             | <del>-</del> | * *     | `            |
| Burden :           | 0.00                                    | 0.00                   | 0.00         | • •     |              |
|                    | _====================================== | :====== <del>1</del> : | ======       |         |              |
| Total Cost :       | 0.00                                    | 0.00                   | 0.00         | •       | . 750        |
| Mark up :          | 0.000                                   | 0.000                  |              |         | A TOP SAMPLE |
| Selling Cost :     | 0.00                                    | 0.00                   |              |         |              |

Estimated Actual Labour Hrs/Amount Done : 0.00 0.00 Profits/(Loss) 0.00 0.00

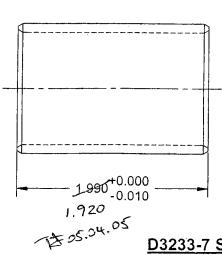
# PRELIMINARY ISSUE

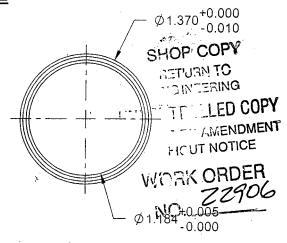
| DESIGN  | DRAWN BY   | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA |                        |  |  |
|---------|------------|--|------------------------|--|--|
| CHECKED | APPROVED   | DRAWING NO.                                    | REV. B<br>SHEET 3 OF 3 |  |  |
| DATE    | <u>, I</u> | TITLE  | SCALE                  |  |  |
| 05.     | .03.08     | WHEEL ASSEMBLY                                 | 1:1                    |  |  |





## D3233-5 HUB SLEEVE





## D3233-7 SHAFT SLEEVE

#### **NOTES:**

- 1) MATERIAL: AISI 1020-1025 ROUND TUBING PER MIL-T-5066 OR ASTM A513-00 MT1020 SRA OR AMS 5075 OR AMS 5077, COLD DRAWN, SEAMLESS (REF. DART SPEC. M1020TR)
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